Exhibit P-40, Budget Line Item Justification: PB 2017 Army Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank

E22203 / Cartridges, Tank, 105MM And 120MM, All Types

Ammunition

ID Code (A=Service Ready, B=Not Service Ready):

Program Elements for Code B Items: N/A Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A	Item MD	AP/MAIS Cod	le(s): N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	3,524.940	101.900	105.541	120.668	8.999	129.667	122.385	147.928	239.751	256.954	-	4,629.066
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	3,524.940	101.900	105.541	120.668	8.999	129.667	122.385	147.928	239.751	256.954	-	4,629.066
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	3,524.940	101.900	105.541	120.668	8.999	129.667	122.385	147.928	239.751	256.954	-	4,629.066
(The following	g Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget requests	are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

### **Description:**

This budget line includes CARTRIDGE, TANK, 105MM and 120MM ALL TYPES:

(E22125) M724A1E1 Cartridge will replace the (E22100) M724A1 Cartridge and provide the Army with a range limited (7,000 meters, maximum) round which can be safely fired at all training sites. The Cartridge, M724A1E1, 105mm Target Practice Discarding Sabot with Tracer (TPDS-T) is used for gunnery training in the Army's 105mm Stryker Brigade Combat Team (SBCT) Mobile Gun System (MGS). This discarding sabot round is similar in external appearance and is ballistically similar out to 2,000 meters with the M900, Armor Piercing Fin Stabilized Discarding Sabot w/Tracer Cartridge. It is used as a training surrogate for the M900 Cartridge used by the MGS. The M724A1E1 Cartridge consists of a deep drawn steel cartridge case, electric primer, propellant and a projectile consisting of a sub-projectile (steel core, windshield, fin and tracer) and aluminum sabot. This item is Code A, approved for service use.

(E73201) Cartridge, 120mm, Target Practice Multi Purpose-Tracer (TPMP-T) M1002 is a target practice cartridge that simulates the size, weight, ballistics and the loader's function of setting the nose switch of the High Explosive Multi-Purpose cartridge M830A1. This round is fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. The projectile is inert and composed of an aluminum body. steel nose with dummy plastic switch, aluminum tailcone, aluminum sabot, nylon obturators and tracer. The tailcone imparts spin to the projectile in flight for stabilization and provides the mechanism to limit the projectile's maximum range. The M1002 replaces the M831A1 cartridge. Tank crews will conduct live fire training with the cartridge to achieve and maintain gunnery proficiency. This item is Code A, approved for service use.

(E73400) 120mm M865 Target Practice Cone-Stabilized Discarding Sabot with Tracer (TPCSDS-T) is a target practice round that simulates the ballistics of the 120mm M829 Series Armor Piercing Fin-Stabilized Discarding Sabot with Tracer (APFSDS-T) round. This round is fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. The projectile is inert and is composed of a steel core, aluminum fin, aluminum sabots, nylon obturator and tracer. The fin imparts spin to the projectile in flight for stabilization and provides the mechanism to limit the projectile's maximum range. Tank crews will conduct live fire training with the cartridge to achieve and maintain gunnery proficiency. This item is Code A, approved for service use.

(E78007) The 120mm M830A1 High Explosive Anti-Tank, Multi-Purpose w/Tracer,(HEAT-MP-T) cartridge is designed for use against light armor, buildings and bunkers, as well as providing self-defense capability against attack helicopters. The lethal mechanism includes a shaped-charged warhead and blast effect. This round is fired from the M256 120MM smooth-bore cannon mounted on the Abrams tank. Additionally, the M830A1 is effective against the side and rear aspects of tanks and dismounted anti-tank and automatic weapon teams (targets not suitable to kinetic energy penetrator cartridges). The fixed round utilizes a combustible cartridge case affixed to a steel stub base and loaded with granular propellant. The fin-stabilized, high chrome alloy steel projectile body contains press-loaded high explosive and a

	01102	TOO!! IEB	
Exhibit P-40, Budget Line Item Justific	ation: PB 2017 Army		Date: February 2016
Appropriation / Budget Activity / Budg 2034A: Procurement of Ammunition, Arm Ammunition			Number / Title: idges, Tank, 105MM And 120MM, All Types
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B	Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A Item	n MDAP/MAIS Code(s): N/A		
precision copper liner. The fuze is armed during lar for service use.	unch and initiated by an impact switch or proximity so	ensor, depending upor	n the operational mode selected by the ammo loader. This item is Code A, approved
kinetic energy cartridge fired from the M256 120mr explosive reactive armor (ERA). The cartridge inconsystem consists of a depleted uranium penetrator in	m smoothbore cannon on the M1A1/M1A2 Abrams T orporates advancements in propulsion, using a temp mated to a drag reducing windshield and flight stabili ed on previous APFSDS-T cartridges, but incorporat	ank. This cartridge ha erature insensitive pro zing multi-bladed fin, a	n to the M829A3 APFSDS-T cartridge. The M829E4 is the most effective anti-armor as been designed to defeat advances in armor protection, specifically advancement in opellant, novel penetrator design, and an advanced composite sabot. The projectile all secured for launch with a composite sabot. The M829E4 captures several new ements to yield significant improvement in performance over previous fielded

Exhibit P-40, Budget Line Item Justification: PB 2017 Army

**Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank

E22203 / Cartridges, Tank, 105MM And 120MM, All Types

Ammunition

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

ID Code (A=Service Ready, B=Not Service Ready):

Line Item MDAP/MAIS Code: N/A Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule			Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
P-5	E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]	P-5a, P-21	Α	912 / 7.024	1,729 / 6.103	1,292 / 5.800	1,438 / 5.900	- / -	1,438 / 5.900
P-5	E73201 / CTG, TANK, 120MM M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31]	P-5a, P-21	Α	173,652 / 360.355	6,632 / 26.647	4,880 / 32.500	4,880 / 38.328	- / -	4,880 / 38.328
P-5	E73400 / CTG TANK 120MM TPCSDS-T M865 [C785]		Α	3,649,000 / 2,591.626	- / 27.915	- /28.263	- /31.900	- / -	- /31.900
P-5	E78007 / CTG, TANK, 120MM HEAT-MP-T M830A1			- / 565.934	- / -	- / -	- / -	- / 8.999	- / 8.999
P-5	E88106 / CTG, TANK, 120MM APFSDS-T, M829A4 [CA64]	P-5a, P-21	Α	- / -	4,690 / 41.235	3,673 / 38.978	3,410 / 44.540	- / -	3,410 / 44.540
P-40	Total Gross/Weapon System Cost			- / 3,524.940	- / 101.900	- / 105.541	- / 120.668	- / 8.999	- / 129.667

<sup>\*</sup>Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

#### Justification:

FY 2017 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2017 Base procurement dollars in the amount of \$120.668 million supports the procurement of .015 million cartridges.

(E22125) M724A1E1 – This is a training unique item not used in combat. The FY 2017 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2017 Base procurement dollars in the amount of \$5.900 million supports the procurement of .001 million M724A1E1 cartridges.

TYPE CLASSIFICATION DATE: 2014

(E73201) M1002 (TPMP-T) - This is a training unique item not used in combat. The FY 2017 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2017 Base procurement dollars in the amount of \$38.328 million supports the procurement of .005 million M1002 cartridges.

TYPE CLASSIFICATION DATE: 2006

(E73400) M865 (TPCSDS-T) - This is a training unique item not used in combat. FY 2017 request supports annual training and builds a depot level in accordance with the Army's procurement goals. The FY 2017 request provides a safer round by incorporating safety initiatives such as a safer case. FY 2017 Base procurement dollars in the amount of \$31.900 million supports recapitalizing M865 cartridges.

TYPE CLASSIFICATION DATE: 1984

	UNCL	ASSIFIED		
Exhibit P-40, Budget Line Item Justification:	: PB 2017 Army		Date: February 2016	
Appropriation / Budget Activity / Budget Sul 2034A: Procurement of Ammunition, Army / BA Ammunition		P-1 Line Item N E22203 / Cartrid	umber / Title: ges, Tank, 105MM And 120MM, All Types	
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B	Items: N/A	Other Related Program Elements: N/A	
	P/MAIS Code(s): N/A			
			nce with the Army's procurement goals. The FY 2017 OCO includes \$8.99 nce Initiatives. FY 2017 OCO dollars in the amount of \$8.999 million suppo	
TYPE CLASSIFICATION DATE: 1993				
(E88106) M829E4 (APFSDS-T) - This is a war reserve ite dollars in the amount of \$44.540 million supports .003 mill		ds a war reserve invento	ry in accordance with the Army's procurement goals. FY 2017 Base procu	rement
TYPE CLASSIFICATION DATE: 2014				

**UNCLASSIFIED** Page 4 of 27

Exhibit P-5, Cost Analysis: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:
2034A / 01 / 35

P-1 Line Item Number / Title:
E22203 / Cartridges, Tank, 105MM And 120MM, All Types

E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	912	1,729	1,292	1,438	-	1,438
Gross/Weapon System Cost (\$ in Millions)	7.024	6.103	5.800	5.900	-	5.900
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	7.024	6.103	5.800	5.900	-	5.900
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	=	-
Total Obligation Authority (\$ in Millions)	7.024	6.103	5.800	5.900	-	5.900
(The following Resource Summary rows are for information	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	7,701.75	3,529.79	4,489.16	4,102.92	=	4,102.92

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

ID Code (A=Service Ready, B=Not Service Ready): A

	P	rior Years	3		FY 2015			FY 2016		FY	' 2017 Bas	e	F۱	/ 2017 OC	0	FY	2017 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost	_																_	
COMPLETE ROUND <sup>(†)</sup>	6,234.00	912	5.685	2,436.00	1,729	4.212	2,875.48	1,292	3.715	2,513.00	1,438	3.614	-	-	-	2,513.00	1,438	3.6
Subtotal: Recurring Cost	-	-	5.685	-	-	4.212	-	-	3.715	-	-	3.614	-	-	-	-	-	3.6
Subtotal: Hardware Cost	-	-	5.685	-	-	4.212	-	-	3.715	-	-	3.614	-	-	-	-	-	3.6
Support - Acceptance Testing	Cost																	
Acceptance Test	-	-	0.060	-	-	-	-	-	0.060	-	-	0.060	-	-	-	-	-	0.0
First Article Test	-	-	0.132	-	-	-	-	-	0.103	-	-	0.108	-	-	-	-	-	0.10
Subtotal: Support - Acceptance Testing Cost	-	-	0.192	-	-	-	-	-	0.163	-	-	0.168	-	-	-	-	-	0.1
Support - Product Improveme	ent Cost	,				,	,	*					,					
Production Verification Test	-	-	-	-	-	-	-	-	0.250	-	-	0.253	-	-	-	-	-	0.2
Subtotal: Support - Product Improvement Cost	-	-	-	-	-	-	-	-	0.250	-	-	0.253	-	-	-	-	-	0.2
Support - Production Enginee	ring Cost	,				,	,	*					,					
Production Engineering	-	-	1.147	-	-	1.656	-	-	1.672	-	-	1.865	-	-	-	-	-	1.8
Subtotal: Support - Production Engineering Cost	-	-	1.147	-	-	1.656	-	-	1.672	-	-	1.865	-	-	-	-	-	1.8
Support - Study & Analysis C	ost	'				,	· · · · · · · · · · · · · · · · · · ·	,		'							,	
Study & Analysis	- 1	-	-	-	-	0.235	_	- 1	-	_		_	-	-	_		- 1	

Exhibit P-5, Cost Analysis: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:
2034A / 01 / 35

P-1 Line Item Number / Title:
E22203 / Cartridges, Tank, 105MM And 120MM, All Types
E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]

ID Code (A=Service Ready, B=Not Service Ready): A MDAP/MAIS Code:

	Р	rior Years	3		FY 2015			FY 2016		FY	2017 Bas	se	F	Y 2017 OC	0	FY	/ 2017 Tot	al
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)									
Subtotal: Support - Study & Analysis Cost	-	-	-	-	-	0.235	-	-	-	-	-	-	-	-	-	-		-
Gross/Weapon System Cost	7,701.75	912	7.024	3,529.79	1,729	6.103	4,489.16	1,292	5.800	4,102.92	1,438	5.900	•	-	-	4,102.92	1,438	5.900

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2017	Army	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35		Item Number / Title [DODIC]: E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]

Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYS ARMAMENT SYS / PLYMOUTH, MN	C / FFP	PICATINNY ARSENAL, NJ	Sep 2015	Sep 2016	1,729	2,436.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYS ARMAMENT SYS / PLYMOUTH, MN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Mar 2017	1,292	2,875.48	Y		
COMPLETE ROUND <sup>(†)</sup>		2017	ALLIANT TECHSYS ARMAMENT SYS / PLYMOUTH, MN	C / FFP	PICATINNY ARSENAL, NJ	Mar 2017	Mar 2018	1,438	2,513.00	Y		

<sup>(†)</sup> indicates the presence of a P-21

#### Remarks:

FY 2015, FY 2016, and FY 2017 are an option to an existing contract awarded in FY 2014.

<b>Approp</b> 2034A /	<b>riation</b> / 01 / 35	Budge	et Acti	:4/																		Date	: Feb	n uai y	2010	,			
				vity /	Budg	get Su	ıb Ac	tivity			<b>Line</b> 2203 <i>I</i>					5MM <i>/</i>	And 1	120MI	Л, AII	Types	8	E22		CTG,	TANI	K, 10	<b>DIC]:</b> 5MM <sup>-</sup> nr) [C <i>l</i>		;-T
		lements in Each)								Fiscal Y	ear 2015											Fiscal Y	ear 2016						В
			ACCEPT									C	alendar	Year 20	15							,	Caler	dar Year	2016				L
O F C R O # FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	N C E
COMPLETE	ROUND		,																										
Prior Years I	Deliveries: 912																												
1 2015	ARMY	1,729	-	1,729												Α -	-	-	-	-	-	-	-	-	-	-	-	145	1,584
1 2016	ARMY	1,292	-	1,292																		Α -	-	-	-	-	-	-	1,292
1 2017	ARMY	1,438	-	1,438																									1,438
					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	

Exh	ibi	t P	-21, Pro	oducti	on Sc	hedu	le: PB	201	7 Arm	у														Date	: Feb	ruary	2016				
		-	<b>ation</b> / 1 1 / 35	Budge	et Acti	vity /	Budg	et Sı	ıb Ac	tivity:	1	1		<b>Item</b> Cartr				5MM A	and 1	20MI	M, All	Types		E22	125 <i>1</i>	nber / CTG, 1(sho	TANŁ	Ī, 105	5MM <sup>-</sup>		-T
				lements in Each)								Fiscal Yo	ear 2017											Fiscal Ye	ear 2018						В
М					ACCEPT PRIOR	BAL								Ca	alendar	Year 201	7								Calen	dar Year	2018				Ĺ
0 F C R O #	F	·γ	SERVICE	PROC QTY	TO 1 OCT 2016	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	U L	A U G	S E P	N C
СОМ	PLE1	TE RO	DUND																												
Prior	Year	s Del	liveries: 912																												
1	20	)15	ARMY	1,729	145	1,584	144	144	144	144	144	144	144	144	144	144	144														
1	20	)16	ARMY	1,292	-	1,292	-	-	-	-	-	115	107	107	107	107	107	107	107	107	107	107	107								
1	20	)17	ARMY	1,438	-	1,438			,			Α -	-	-	-	-	-	-	-	-	-	-	-	129	119	119	119	119	119	119	
		·			,		0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A	J U N	J J	A U G	S E	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	n 1	A U G	S E P	

M O F C R	Cost Elemen (Units in Each	ents ach)	CEPT RIOR BA		udge	et Su	b Act	tivity:		E2:		Item / Carti				5MM <i>A</i>	And 12	20MN	/I, All	Types		E22	<b>Num</b> 125 / 0					PDS
M O F C R O # FY SER	(Units in Eac	AC PF	RIOR BA																			M72	4A1E	1(sho	rt rg l	KE trr	ır) [C <i>l</i>	ر58]
C R D # FY SER	PR	PF	RIOR BA							Fiscal Y	ear 2019	)										iscal Y	ear 2020					
C R O # FY SER	PR											C	alendar	Year 20	9								Calen	dar Year	2020			
COMPLETE ROUND	RVICE Q1	ROC C	TO 1 DU DCT AS 2018 1 O	E OF	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
	ND																			1								
Prior Years Deliverie	ies: 912																											
1 2015 ARM			.,. = -	-																								
1 2016 ARM			-,	-						1																		
1 2017 ARM	MY 1,	1,438	843	95	119	119	119	119	119																			
					O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N J	J L	U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U L	A U G	S E P

Exhibit P-21, Production Schedule: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:

2034A / 01 / 35

P-1 Line Item Number / Title:

E22203 / Cartridges, Tank, 105MM And 120MM, All Types

E22125 / CTG, TANK, 105MM TPDS-T

M724A1E1(short rg KE trnr) [CA58]

		Product	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						Ir	nitial			Red	order	
Ref #	Manufacturer Name - Location	MSR For 2017	1-8-5 For 2017	MAX For 2017	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	ALLIANT TECHSYS ARMAMENT SYS - PLYMOUTH, MN	1,000	2,000	3,000	7	1	1 12	23	6	6	12	18

<sup>&</sup>quot;A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:

2034A / 01 / 35

P-1 Line Item Number / Title:

E22203 / Cartridges, Tank, 105MM And 120MM, All Types

E73201 / CTG, TANK, 120MM M1002 TP

MULTI PUR-TRACE (TPMP-T) [CA31]

ior Years	FY 2015	EV 0040			
	20.0	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
173,652	6,632	4,880	4,880	-	4,880
360.355	26.647	32.500	38.328	-	38.328
-	-	-	-	-	-
360.355	26.647	32.500	38.328	-	38.328
-	-	-	-	-	=
360.355	26.647	32.500	38.328	-	38.328
ooses only. The cor	responding budget requests	are documented elsewher	e.)		
-	-	-	-	-	-
2,075.16	4,017.94	6,659.84	7,854.10	-	7,854.10
	360.355 - 360.355 - 360.355	360.355 26.647	360.355 26.647 32.500	360.355	360.355

	F	Prior Years	5		FY 2015			FY 2016		F۱	/ 2017 Bas	se	F١	/ 2017 OC	:0	F۱	/ 2017 Tot	al
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost									
Hardware Cost				<u> </u>				'							·	'		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	360.355	2,805.00	6,632	18.603	2,896.06	4,880	14.133	2,993.00	4,880	14.606	-	-	-	2,993.00	4,880	14.
Subtotal: Recurring Cost	-	-	360.355	-	-	18.603	-	-	14.133	-	-	14.606	-	-	-	-	-	14.
Subtotal: Hardware Cost	-	-	360.355	-	-	18.603	-	-	14.133	-	-	14.606	-	-	-	-	-	14.0
Support - Acceptance Testing	Cost																	
Acceptance Test	-	-	-	-	-	0.842	-	-	0.873	-	-	0.621	-	-	-	-	-	0.
Subtotal: Support - Acceptance Testing Cost	-	-	-	-	-	0.842	-	-	0.873	-	-	0.621	-	-	-	-	-	0.
Support - Product Improveme	nt Cost																	
Safety	-	-	-	-	-	4.073	-	-	2.910	-	-	2.593	-	-	-	-	-	2.
Reliability	-	-	-	-	-	-	-	-	0.893	-	-	1.209	-	-	-	-	-	1.
Subtotal: Support - Product Improvement Cost	-	-	-	-	-	4.073	-	-	3.803	-	-	3.802	-	-	-	-	-	3.
Support - Production Enginee	ring Cost																	
Production Engineering	-	-	-	-	-	3.121	-	-	3.251	-	-	-	-	-	-	-	-	
Subtotal: Support - Production Engineering Cost	-	-	-	-	-	3.121	-	-	3.251	-	-	-	-	-	-	-	-	
Support - Quality Assurance (	Cost																	
Quality Assurance	-	-	-	-	-	0.008	-	-	0.008	-	-	0.008	-	-	-	-	-	0.

Exhibit P-5, Cost Analysis: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:
2034A / 01 / 35

P-1 Line Item Number / Title:
E22203 / Cartridges, Tank, 105MM And 120MM, All Types
E73201 / CTG, TANK, 120MM M1002 TP
MULTI PUR-TRACE (TPMP-T) [CA31]

ID Code (A=Service Ready, B=Not Service Ready): A MDAP/MAIS Code:

	P	rior Years	;		FY 2015			FY 2016		FY	' 2017 Bas	se	F`	/ 2017 OC	0	F۱	Y 2017 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Subtotal: Support - Quality Assurance Cost	-	-	-	-	-	0.008	-	-	0.008	-	-	0.008	-	-	-	-	-	0.008
Support - Recapitalization Co	st																	
Recapitalization	-	-	-	-	-	-	-	-	10.432	-	-	19.291	-	-	-	-	-	19.291
Subtotal: Support - Recapitalization Cost	-	-	-	-	-	-	-	-	10.432	-	-	19.291	-	-	-	-	-	19.291
Gross/Weapon System Cost	2,075.16	173,652	360.355	4,017.94	6,632	26.647	6,659.84	4,880	32.500	7,854.10	4,880	38.328	-	-	-	7,854.10	4,880	38.328

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: F	PB 2017 Army	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity / 2034A / 01 / 35	<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Ty	pes Item Number / Title [DODIC]: E73201 / CTG, TANK, 120MM M1002 TP MULTI PUR-TRACE (TPMP-T) [CA31]

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	Date
COMPLETE ROUND <sup>(†)</sup>		2015	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2017	3,316	2,805.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYS ARMAMENT SYS / PLYMOUTH, MN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	3,316	2,805.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Feb 2017	2,440	2,896.06	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYS ARMAMENT SYS / PLYMOUTH, MN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Feb 2017	2,440	2,896.06	Y		
COMPLETE ROUND <sup>(†)</sup>		2017	TO BE SELECTED / TBS02	TBD	ROCK ISLAND ARSENAL, IL	Mar 2017	Feb 2018	2,440	2,993.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2017	TO BE SELECTED / TBS01	TBD	ROCK ISLAND ARSENAL, IL	Mar 2017	Feb 2018	2,440	2,993.00	Y		

<sup>(†)</sup> indicates the presence of a P-21

#### Remarks:

FY 2015 and FY 2016 hardware unit prices are an average unit price for multiple producers. FY 2015 and FY 2016 complete round is awarded as an option to the FY 2012 contract.

E	Exhibit P-21, Production Schedul	le: PB 2017 Army			Date: February 2016	
	Appropriation / Budget Activity / 2034A / 01 / 35	Budget Sub Activity:	P-1 Line Item Number / Title: E22203 / Cartridges, Tank, 105MM	And 120MM, All Types	Item Number / Title [DODIC]: E73201 / CTG, TANK, 120MM M10 MULTI PUR-TRACE (TPMP-T) [CA	
Г	Cost Elements		<b>-</b> : 11/2		F: 1.V 2010	В

Cost Elements (Units in Each)  PROCUTE UNITS OF THE	ACCEPT PRIOR TO 1 OC OCT TY 2014	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E	Fiscal Ye	ear 2015 A		alendar	Year 201	5							Fiscal Ye	ear 2016 Caler	ndar Year	2016				B A L
JND QTY	PRIOR TO 1 OC OCT TY 2014	BAL DUE AS OF 1 OCT	c	0	E						alendar	Year 201	5								Caler	dar Year	2016				L
JND QTY	OC OCT	DUE AS OF 1 OCT	c	0	E					М	Л													T			Π Δ
JND QTY	OC OCT TY 2014	AS OF 1 OCT	c	0	E					141		J	A	s	0	N	D		F	м	Α	м		J	Α	S	N
JND			Т	V	С	N			P	Α	Ŭ	Ŭ	Ü	E	č	ö	E	Ă	Ē	A	P	A	ŭ	Ŭ	U	Ĕ	C
	316						В	R	R	Y	N	L	G	P	Т	V	С	N	В	R	R	Y	N	L	G	Р	E
RMY 3,31	316																										
	,310	3,316						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,316
C <sup>(‡)</sup> 51	513 -	513						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	513
otal 3,82	,829 -	3,829						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,82
RMY 3,31	,316 -	3,316						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	856	2,460
C <sup>(‡)</sup> 51	513 -	513						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	513
otal 3,82	,829 -	3,829						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	856	2,973
RMY 2,44	,440 -	2,440																		A -	-	-	-	-	-	-	2,440
RMY 2,44	,440 -	2,440																		Α -	-	-	-	-	-	-	2,440
RMY 2,44	,440 -	2,440																		· ·			· ·				2,440
RMY 2,44	,440 -	2,440																									2,440
			0	N	D	J	F	М	Α	М	J	J	Α	s	0	N	D	J	F	М	Α	М	J	J	Α	s	
			<u>C</u>			A				A		U			C				E	A		A		U		E	
C RI RI RI	(‡)  al 3,  VMY 3  (‡)  al 3,  (‡)  VMY 2  VMY 2  VMY 2	(‡) 513 - al 3,829 - MY 3,316 - (‡) 513 - al 3,829 - MY 2,440 - MY 2,440 - MY 2,440 -	(‡) 513 - 513 al 3,829 - 3,829 MY 3,316 - 3,316 (‡) 513 - 513 al 3,829 - 3,829 MY 2,440 - 2,440 MY 2,440 - 2,440 MY 2,440 - 2,440 MY 2,440 - 2,440	(‡) 513 - 513  al 3,829 - 3,829  MY 3,316 - 3,316  (‡) 513 - 513  al 3,829 - 3,829  MY 2,440 - 2,440  MY 2,440 - 2,440  MY 2,440 - 2,440  MY 2,440 - 2,440  MY 2,440 - 2,440	(t) 513 - 513  al 3,829 - 3,829  WY 3,316 - 3,316  (t) 513 - 513  al 3,829 - 3,829  WY 2,440 - 2,440  WY 2,440 - 2,440	(t) 513 - 513  al 3,829 - 3,829  WY 3,316 - 3,316  (t) 513 - 513  al 3,829 - 3,829  WY 2,440 - 2,440  WY 0,440 - 2,440  WY 0,440 - 2,440  WY 0,440 - 2,440	(‡) 513 - 513  al 3,829 - 3,829  WY 3,316 - 3,316  (‡) 513 - 513  al 3,829 - 3,829  WY 2,440 - 2,440  WY 2,440 - 2,440	(t) 513 - 513  al 3,829 - 3,829  WY 3,316 - 3,316  (t) 513 - 513  al 3,829 - 3,829  WY 2,440 - 2,440  WY 2,440 - 0 2,440  WY 2,440 - 0 2,440	(t) 513 - 513 A - 644	(‡) 513 - 513 A	(‡) 513 - 513	(t) 513 - 513	S13	S13	(t) 513 - 513	S13	S13	S13	S13	S13	A -	A -	S13	S13	A -	S   S   S   S   S   S   S   S   S   S	S13

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			513	-	513	-,		_	-	513																				
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4	2017	ARMY	2,440	-	2,440						Α -	-	-	-	-	-	-	-	-	-	-	207	203	203	203	203	203	203	203	
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hib	it F	P-21, Pro	ducti	on Sc	hedul	e: PB	2017	7 Arm	у														Date	: Feb	oruar	y 201	6			
			Budge	et Acti	vity /	Budge	et Su	ıb Ac	tivity	:								And <sup>1</sup>	120MI	M, All	Туре	S	E73	201 <i>1</i>	CTG	, TAN	K, 12	0MM		
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1 2	2017	ARMY	2,440	1,628	812	203	203	203	203																					-
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	pro 34/ 4 = R # 1 2 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	Propi 34A / MPLETE 1 2015 1 2015 2 2015 2 2015 2 2016 2 2016 3 2017	Cost EI (Units in Market Propriation / I	Cost Elements (Units in Each)  PROC TY PLETE ROUND 1 2015 ARMY 3,316 1 2015 MC (‡) 513 1 2015 ARMY 3,316 2 2015 MC (‡) 513 2 2015 ARMY 3,829 3 2016 ARMY 2,440 2 2016 ARMY 2,440 2 2016 ARMY 2,440 3 2017 ARMY 2,440	Cost Elements (Units in Each)	Cost Elements (Units in Each)   ACCEPT PRIOR DUE OCT 2018   1 OCT	Cost Elements (Units in Each)   ACCEPT   PRIOR   TO 1   DUE   O AS OF   C TO 1   O CT   T	Cost Elements (Units in Each)   ACCEPT   PRIOR   TO 1   NO   NO   NO   NO   NO   NO   NO	Cost Elements (Units in Each)	Cost Elements (Units in Each)  ACCEPT PRIOR TO 1 DUE O N D J OCT AS OF C O E A OCT T V C N  APPLETE ROUND  1 2015 ARMY 3,316 3,316 - 1 2015 MC (\$\$^{(\$)}\$ 513 513 - 1 2015 ARMY 3,316 3,316 - 2 2015 MC (\$\$^{(\$)}\$ 513 513 - 2 2015 MC (\$\$^{(\$)}\$ 513 513 - 2 2015 ARMY 3,316 3,316 - 2 2015 ARMY 3,316 3,316 - 2 2015 ARMY 3,316 3,316 - 2 2015 ARMY 2,440 2,440 - 3 2016 ARMY 2,440 2,440 - 3 2017 ARMY 2,440 1,628 812 203 203 203 203 4 4 2017 ARMY 2,440 1,628 812 203 203 203 203	Cost Elements (Units in Each)	Cost Elements	Cost Elements	Proposition   Budget Activity   Budget Sub Activity:   P-1 Line Item   E22203   Cart	P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   P-1 Line Item Num   E22203 / Cartridges   P-1 Line Item Num   E22203   P-1 Line Item Num   E22203 / Cartridges   P-1 Line Item Num   E22203 / Caltridges   P-1 Line Item Num   E22203 /	P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   P-1 Line Item Number / E22203 / Cartridges, Tal	P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   P-1 Line Item Number / Title   E22203 / Cartridges, Tank, 10	Propriation / Budget Activity / Budget Sub Activity:    P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM	P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   E22203 / Cartridges, Tank, 105MM And	P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   E22203 / Cartridges, Tank, 105MM And 120MI	P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   B4A / 01 / 35     P-1 Line Item Number / Title:	P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   P-1 Line Item Number / Title:	P-21, Production Schedule: PB 2017 Army propriation / Budget Activity / Budget Sub Activity:  B4A / 01 / 35    P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   P-1 Line Item Number / Title:   E222015   Calendar Year 2019	Date	Date: Feb. Propriation / Budget Activity / Budget Sub Activity:    P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   Fiscal Year 2019	Date: Februar Propriation / Budget Activity / Budget Sub Activity:    P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   E73201 / CTG MULTI PUR-T	Date: February 2010    P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   P-1 Line Item Number / Title:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   E73201 / CTG, TAN MULTI PUR-TRACE	Date: February 2016    P-21, Production Schedule: PB 2017 Army   Propriation / Budget Activity / Budget Sub Activity:   E22203 / Cartridges, Tank, 105MM And 120MM, All Types   E73201 / CTG, TANK, 12   MULTI PUR-TRACE (TPN	Date: February 2016    Date: February 2016	Date: February 2016    Population   Budget Activity   Budget Sub Activity:   E2203   Cartridges, Tank, 105MM And 120MM, All Types   E73201   CTG, TANK, 120MM M100   MULTI PUR-TRACE (TPMP-T) [CA33   Calendar Year 2019   Fiscal Year 2019   Fiscal Year 2019   Fiscal Year 2019   Calendar Year 2019   Calend

Exhibit P-21, Production Schedule: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:

2034A / 01 / 35

P-1 Line Item Number / Title:

E22203 / Cartridges, Tank, 105MM And 120MM, All Types

E73201 / CTG, TANK, 120MM M1002 TP

MULTI PUR-TRACE (TPMP-T) [CA31]

		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MFR						lni	tial			Reo	rder	
Ref	Manufacturer Name - Location	MSR For 2017	1-8-5 For 2017	MAX For 2017	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	GENERAL DYNAMICS ORD AND TACT - ST PETERSBURG, FL	500	11,000	33,000	6	6	11	17	6	6	11	17
2	ALLIANT TECHSYS ARMAMENT SYS - PLYMOUTH, MN	500	11,000	33,000	6	6	11	17	6	6	11	17
3	TO BE SELECTED - TBS02	500	11,000	33,000	6	6	11	17	6	6	11	17
4	TO BE SELECTED - TBS01	500	11,000	33,000	6	6	11	17	6	6	11	17

<sup>(‡)</sup> Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Date: February 2016 Exhibit P-5, Cost Analysis: PB 2017 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title:

2034A / 01 / 35 E22203 / Cartridges, Tank, 105MM And 120MM, All Types

Item Number / Title [DODIC]: E73400 / CTG TANK 120MM TPCSDS-T

M865 [C785]

ID Code (A=Service Ready, B=Not Service Ready): A MDAP/MAIS Code:

(						
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	3,649,000	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,591.626	27.915	28.263	31.900	-	31.900
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,591.626	27.915	28.263	31.900	-	31.900
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,591.626	27.915	28.263	31.900	-	31.900
(The following Resource Summary rows are for information	ational purposes only. The cor	responding budget requests	are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	710.23	-	-	-	-	-

	P	rior Years	;		FY 2015			FY 2016		F۱	2017 Ba	se	FY	/ 2017 OC	0	FY	/ 2017 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)
Support - Acceptance Testing	Cost																	
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	1.202	-	-	-	-	-	1.20
Subtotal: Support - Acceptance Testing Cost	-	-	-	-	-	-	-	-	-	-	-	1.202	-	-	-	-	-	1.20
Support - Product Improveme	ent Cost											•						
Reliability	-	-	-	-	-	2.620	-	-	0.601	-	-	1.142	-	-	-	-	-	1.142
Safety	-	-	-	-	-	2.297	-	-	2.186	-	-	1.561	-	-	-	-	-	1.56
Subtotal: Support - Product Improvement Cost	-	-	-	-	-	4.917	-	-	2.787	-	-	2.703	-	-	-	-	-	2.70
Support - Production Enginee	ering Cost																	
Production Engineering	-	-	2,591.626	-	-	2.363	-	-	2.847	-	-	1.276	-	-	-	-	-	1.276
Subtotal: Support - Production Engineering Cost	-	-	2,591.626	-	-	2.363	-	-	2.847	-	-	1.276	-	-	-	-	-	1.27
Support - Quality Assurance	Cost																	
Quality Assurance	-	-	-	-	-	0.010	-	-	0.010	-	-	0.009	-	-	-	-	-	0.00
Subtotal: Support - Quality Assurance Cost	-	-	-	-	-	0.010	-	-	0.010	-	-	0.009	-	-	-	-	-	0.00
Support - Recapitalization Co	st											•						
Recapitalization	-	-	-	-	-	20.625	-	-	22.619	-	-	26.710	-	-	-	-	-	26.710
Subtotal: Support - Recapitalization Cost	-	-	-	-	-	20.625	-	-	22.619	-	-	26.710	-	-	-	-	-	26.71
Gross/Weapon System Cost	710.23	3,649,000	2,591.626	-	-	27.915	-	-	28.263	-	-	31.900	-	-	-	-	-	31.90

Exhibit P-5, Cost Analysis: PB 2017 Army			Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35	P-1 Line Item Number / Tit E22203 / Cartridges, Tank,	t <b>le:</b> 105MM And 120MM, All Types	Item Number / Title [DODIC]: E73400 / CTG TANK 120MM TPCSDS-T M865 [C785]
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:	

Exhibit P-5, Cost Analysis: PB 2017 Army

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]:

2034A / 01 / 35 E22203 / Cartridges, Tank, 105MM And 120MM, All Types E78007 / CTG, TANK, 120MM HEAT-

MP-T M830A1

ID Code (A=Service Ready, B=Not Service Ready) : MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	565.934	-	-	-	8.999	8.999
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	565.934	-	-	-	8.999	8.999
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	565.934	-	-	-	8.999	8.999
(The following Resource Summary rows are for info	rmational purposes only. The cor	responding budget reques	ts are documented elsewhe	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Gross/Weapon System Unit Cost (\$ in Dollars)

	F	Prior Years	3		FY 2015			FY 2016		FY	' 2017 Bas	se	F	/ 2017 OC	0	F	/ 2017 Tot	al
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)												
Support - Acceptance Testing	Cost									'								
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.234	-	-	0.23
Subtotal: Support - Acceptance Testing Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.234	-	-	0.23
Support - Production Enginee	ering Cost																	
Production Engineering	-	-	565.934	-	-	-	-	-	-	-	-	-	-	-	0.630	-	-	0.63
Subtotal: Support - Production Engineering Cost	-	-	565.934	-	-	-	-	-	-	-	-	-	-	-	0.630	-	-	0.63
Support - Quality Assurance	Cost			·									·					'
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.003	-	-	0.00
Subtotal: Support - Quality Assurance Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.003	-	-	0.00
Support - Recapitalization Co	st																	
Recapitalization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.132	-	-	8.13
Subtotal: Support - Recapitalization Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.132	-	-	8.13
Gross/Weapon System Cost	-	-	565.934	-	-	-	-	-	-	-	-	-	-	-	8.999	-	-	8.99

Date: February 2016 Exhibit P-5, Cost Analysis: PB 2017 Army Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 2034A / 01 / 35 E22203 / Cartridges, Tank, 105MM And 120MM, All Types E88106 / CTG, TANK, 120MM APFSDS-T, M829A4 [CA64]

ID Code (A=Service Ready, B=Not Service Ready): A		I I	MDAP/MAIS Code:			
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	4,69	3,673	3,410	-	3,410
Gross/Weapon System Cost (\$ in Millions)	-	41.23	38.978	44.540	-	44.540
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	41.23	38.978	44.540	-	44.540
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	41.23	38.978	44.540	-	44.540
(The following Resource Summary rows are for information	onal purposes only. The co	rresponding budget reque	ests are documented elsewhe	re.)		3
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	8,792.1	1 10,612.03	13,061.58	-	13,061.58

	P	rior Years	S		FY 2015			FY 2016		FY	' 2017 Bas	e	F۱	/ 2017 OC	0	FY	2017 Tota	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Hardware Cost			'	'	'	'	,				'							
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	-	7,534.18	4,690	35.335	9,430.86	3,673	34.640	11,200.00	3,410	38.192	-	-	-	11,200.00	3,410	38.1
Subtotal: Recurring Cost	-	-	-	-	-	35.335	-	-	34.640	-	-	38.192	-	-	-	-	-	38.1
Non Recurring Cost							,											
NonRecurring Engineering	-	-	-	-	-	1.754	-	-	-	-	-	2.151	-	-	-	-	-	2.1
Subtotal: Non Recurring Cost	-	-	-	-	-	1.754	-	-	=	-	-	2.151	-	=	-	-	-	2.1
Subtotal: Hardware Cost	-	-	-	-	-	37.089	-	-	34.640	-	-	40.343	-	-	-	-	-	40.3
Support - Acceptance Testing	Cost																	
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.256	-	-	-	-	-	0.2
First Article Test	-	-	-	-	-	-	-	-	0.156	-	-	0.188	-	-	-	-	-	0.1
Subtotal: Support - Acceptance Testing Cost	-	-	-	-	-	-	-	-	0.156	-	-	0.444	-	-	-	-	-	0.4
Support - Production Enginee	ring Cost																	
Production Engineering	-	-	-	-	-	4.146	-	-	3.982	-	-	3.540	-	-	-	-	-	3.5
Subtotal: Support - Production Engineering Cost	-	-	-	-	-	4.146	-	-	3.982	-	-	3.540	-	-	-	-	-	3.5
Support - Study & Analysis Co	ost			· '	'		,				'		'					
Study & Analysis	-	-	-	-	-	-	-	-	0.200	-	-	0.213	-	-	-	-	-	0.2

Exhibit P-5, Cost Analysis: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:
2034A / 01 / 35

P-1 Line Item Number / Title:
E22203 / Cartridges, Tank, 105MM And 120MM, All Types
E88106 / CTG, TANK, 120MM APFSDS-T, M829A4 [CA64]

ID Code (A=Service Ready, B=Not Service Ready): A MDAP/MAIS Code:

	P	rior Years	3		FY 2015			FY 2016		FY	2017 Bas	se	F	Y 2017 OC	0	FY	/ 2017 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)
Subtotal: Support - Study & Analysis Cost	-	-	-	-	-	-	-		0.200	-	-	0.213	-	-	-	-		0.213
Gross/Weapon System Cost	-	•	-	8,792.11	4,690	41.235	10,612.03	3,673	38.978	13,061.58	3,410	44.540	•	-	-	13,061.58	3,410	44.540

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2017 A	Army	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35		Item Number / Title [DODIC]: E88106 / CTG, TANK, 120MM APFSDS- T, M829A4 [CA64]

Cost Elements	0 0	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	C/FFP	PICATINNY ARSENAL, NJ	Sep 2015	Nov 2016	4,690	7,534.18	Υ		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	C / FFP	PICATINNY ARSENAL, NJ	Jul 2016	Sep 2017	3,673	9,430.86	Y		
COMPLETE ROUND <sup>(†)</sup>		2017	TO BE SELECTED / TBS01	TBD	PICATINNY ARSENAL, NJ	Mar 2017	May 2018	3,410	11,200.00	Y		

<sup>(†)</sup> indicates the presence of a P-21

#### Remarks:

FY 2016 is an option to an existing contract awarded in FY 2015.

E	khi	ibit F	P-21, Pr	oducti	ion Sc	hedul	le: PE	3 201	7 Arm	ny														Date	e: Fel	oruary	/ 2016	3			
1 -	-	-	riation / 01 / 35	Budge	et Acti	vity /	Budg	jet Sı	ıb Ac	tivity	:				<b>Num</b> ridges				And 1	20MI	M, All	Туре	s	E88	106 <i>l</i>		TAN	[ <b>DO</b> E K, 120	DIC]: OMM A	۹PFS	DS-
				lements in Each)								Fiscal Y	ear 2015											Fiscal Y	ear 2016	3					В
			ACCEPT PAL											(	alendar	Year 201	5						_		Cale	ndar Yea	r 2016				L
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CC	OMP	LETE F	ROUND																												
	1	2015	ARMY	4,690	-	4,690												Α -	-	-	-	-	-	-	-	-	-	-	-	-	4,690
	1	2016	ARMY	3,673	-	3,673													,									Α -	-	-	3,673
	2	2017	ARMY	3,410	-	3,410																									3,410
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J J	A U G	S E P	

Ex	hik	oit P	P-21, Pro	oducti	ion Sc	hedu	le: Pl	3 201	7 Arm	ıy														Dat	e: Feb	oruary	/ 2016	3			
	-	-	iation / 1 01 / 35	Budge	et Acti	vity /	Bud	get Sı	ıb Ac	tivity	:		<b>Line</b> 2203 <i>i</i>					5MM A	and 1	20MI	M, All	Туре	s	E88		CTG,			OIC]: 0MM /	APFS	DS-
		Cost Elements (Units in Each)  ACCEPT										Fiscal Y	ear 2017											Fiscal \	ear 2018)						ВА
												C	alendar	Year 201	7								Caler	ndar Yea	r 2018				L		
0 C 0	M F R #	ACCEPT						Α	F E B	M A R	A P R	M A Y	J U	J U	A U G	S E P	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J U	A U G	S E P	A N C E		
COI	MPLI	ETE R	ROUND																												
	1 2	2015	ARMY	4,690	-	4,690	-	4,690																							-
	1 2	2016	ARMY	3,673	-	3,673	-	-	-	-	-	-	-	-	-	-	-	3,673												l	-
	2 2	2017	ARMY	3,410	-	3,410					,	Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	3,410					-
			016 ARMY 3,673 - 3,673								F E B	M A R	A P R	M A Y	J U N	J U	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U	J L	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2017 Army

Appropriation / Budget Activity / Budget Sub Activity:
2034A / 01 / 35

P-1 Line Item Number / Title:
E22203 / Cartridges, Tank, 105MM And 120MM, All Types

E88106 / CTG, TANK, 120MM APFSDST, M829A4 [CA64]

		Produc	tion Rates (Each /	Month)				Procurement Le	adtime (Months)			
MF	R					lni	tial			Reo	rder	
R		MSR For 2017	1-8-5 For 2017	MAX For 2017	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
	1 ALLIANT TECHSYSTEMS INC PLYMOUTH, MN	1,000	3,000	5,000		9	15	24	6	6	14	20
	2 TO BE SELECTED - TBS01	1,000	3,000	5,000	6	6	15	21	6	6	14	20

<sup>&</sup>quot;A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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